Message

From: Jean Zhuang [jzhuang@selcnc.org]

Sent: 4/5/2018 6:15:52 PM

To: Strynar, Mark [Strynar.Mark@epa.gov]
Subject: RE: Access to your research paper

I apologize—I meant to say 51,000 nanograms per liter, not micrograms. Thanks!

From: Jean Zhuang

Sent: Thursday, April 05, 2018 1:47 PM

To: 'Strynar, Mark'

Subject: RE: Access to your research paper

Hi Mark,

Thanks for your help yesterday. I'm looking at Figure S2 in the supporting information of your paper. Does it show that the combined PFAS levels downstream of the Chemours' facility is at levels of up to 51,000 micrograms per liter? I want to make sure I'm interpreting the data correctly. Thank you!

Best,

Jean

From: Strynar, Mark [mailto:Strynar.Mark@epa.gov]

Sent: Wednesday, April 04, 2018 3:20 PM

To: Jean Zhuang

Subject: RE: Access to your research paper

Jean,

It is hard to say as some of those feature point to the same compound (fragments, the compound itself and gas phase dimers) in the water. In essence my paper points to 12 chemicals. In addition I know we can add at least 7 additional chemicals on to that list we have figured out. There are likely more we have yet to figure out so I can't estimate how many. 20 is a pretty safe bet for water. There may well be that many in air emissions as well.

Mark

From: Jean Zhuang [mailto:jzhuang@selcnc.org]
Sent: Wednesday, April 04, 2018 12:02 PM
To: Strynar, Mark < Strynar.Mark@epa.gov>
Subject: RE: Access to your research paper

Hi Mark,

Does your paper happen to reveal approximately how many PFAS compounds are coming out of the facility? I know it says that there were 77 features unique to the downstream sample, but it's not clear to me whether or not those are PFAS compounds.

Thanks!

Jean

From: Strynar, Mark [mailto:Strynar.Mark@epa.gov] **Sent:** Wednesday, April 04, 2018 11:02 AM To: Jean Zhuang Subject: RE: Access to your research paper No problem. You happened to catch me in my office checking my email. Cheers. Mark From: Jean Zhuang [mailto:jzhuang@selcnc.org] Sent: Wednesday, April 04, 2018 11:01 AM To: Strynar, Mark < Strynar.Mark@epa.gov> Subject: RE: Access to your research paper Hi Mark, Thank you for sending these, and for being so fast! I will let you know if I have any questions. Best, Jean From: Strynar, Mark [mailto:Strynar.Mark@epa.gov] Sent: Wednesday, April 04, 2018 10:58 AM To: Jean Zhuang **Subject:** RE: Access to your research paper Hi Jean, Here is that paper (with supporting info) and two others about PFAS in the Cape Fear drainage basin and in some instances finished drinking water. The Nakayama paper was our early work. The sun et al., 2016 (with SI) was the one that precipitated the GenX press.

Feel free to ask follow-up questions if you have any.

Mark

From: Jean Zhuang [mailto:jzhuang@selcnc.org]
Sent: Wednesday, April 04, 2018 9:44 AM
To: Strynar, Mark < Subject: Access to your research paper

Hello Mark,

Thanks for meeting with Geoff and me on Monday. I found it both fascinating and terrifying. I've been doing some more digging on PFAS compounds, and came across a paper you published in 2015:

https://pubs.acs.org/doi/abs/10.1021/acs.est.5b01215. I don't have access to the full paper and was wondering if you would be so kind as to email me a copy of it. Thanks!

All the best,

Jean Zhuang

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